

advanced on admission, 84 in number, only 6, or 7·1 per cent., had been cured, that is, were well, in 1909. Only four others were alive, while 74, or 88 per cent., were dead.

It should be noted that Dr. Bardswell deals rather with what may be called the "chances of survival" than with the "expectation of life" as defined by actuaries. In regard to the capacity for work—that is, ability to work or to live an ordinary life—of the patients now described as well, he gives some interesting figures. Here, again, the incipient cases afford by far the greatest percentage of workers. Of those working at the above mentioned dates, it was found that 59 per cent. were able to do full work, 10·2 per cent. could work short hours, 10·2 per cent. had given up work, and 20·4 per cent. had died. From amongst the moderately advanced cases, 32 per cent. were doing full work, 7·3 per cent. were working short hours, and 24·5 per cent. had given up work entirely; 36·6 per cent. were dead. Of the advanced cases only 4 per cent. were working short hours, and 94 per cent. had died. The prospect of any advanced case ever doing a normal amount of work is, therefore, very small indeed; but, as Dr. Bardswell puts it, the "outlook for the moderately advanced cases is very fair and for the incipient cases good."

It is interesting to note that in a commentary on these cases Dr. Bardswell states that there are few morbid conditions that are so rapidly and markedly benefited by appropriate treatment as is tuberculosis, but that this treatment must be prolonged there seems to be little doubt, prolonged considerably beyond what the patient, from his feeling of well-being, usually considers necessary. At the same time, he believes that the patient may remain too long under sanatorium treatment. Some patients lose their self-reliance and become nervous as to their condition, and develop into "sanatorium hypochondriacs." These are usually the patients who do not obey instructions or who do not respond to treatment. Such patients, he believes, should go home or be sent abroad, and be encouraged to "get out of themselves" and find other interests.

Dr. Bardswell is also a great believer in the importance, as factors in success, of the temperament and character of the patient. He says:—

"To the consumptive who possesses earnestness of purpose, common-sense, courage, and patience, cure is much more probable than in one who lacks these characteristics. It has been well said that a fool never gets well of consumption."

Whatever else may be said, it must be admitted that the sanatorium treatment has prolonged by a very considerable span the life of the consumptive patient. Dr. Williams's estimate of the average duration of life of selected cases of consumption in the pre-sanatorium days was eight years. Dr. Noel Bardswell's figures indicate an improvement on this, for he finds that of every one hundred cases of consumption, taking them as they come, and without any attempt at selection, fifty will die within a period of from four to nine years after admission to the sanatorium, but the remaining fifty will be found for the most part to be enjoying good health after the same

period. A study of the abstracts of Dr. Bardswell's cases seems to bear out his contention. This work may be commended to the attention, not only of those who expect too much from the sanatorium treatment, but also to those who are prone to belittle it.

#### EGYPTIAN RELIGION.

*The Book of the Dead.* By H. M. Tirard. With an introduction by Prof. E. Naville. Pp. 170. (London: S.P.C.K., 1910.) Price 3s. 6d.

THIS little book will no doubt interest the many amateurs of Egyptology in this country, but it cannot be said to be of any scientific value. For this it is too conventionally "religious" in tone; a cult of "one supreme God" is supposed to have existed amid the chaotic polytheism of Egypt (there is no proof of any such conception before the time of Akhenaten), and the commonplace belief in the immortality of the soul, which is shared by all mankind, is credited to the Egyptians as a special virtue. Also the book is not historical and archæological enough in treatment. We hardly realise from Mrs. Tirard's pages that the Egyptian religion had a long history, and that it was not the same at all periods; nor, to take a concrete instance, are we told by her that the *ushabti* figures, so typical of the interments of the dead, were unknown until half Egyptian history had been accomplished, their place being taken in the earlier ages by those remarkable models of workmen and boatmen which are among the chief treasures of our museums. All the typical prayers from "The Book of the Dead," about the *ushabtis*, the fields of Aalu, and so forth, which we regard as so characteristic of Egyptian religion, were not characteristic of it for half its period of existence.

The interest of the Egyptian spells and charms relating to the souls of the dead, which we call "The Book of the Dead," is to the anthropologist very great, as he gains from it most interesting views of the original savage state of the African ancestors of the Egyptians. But a strictly scientific book on these spells is yet to seek. A critical survey of the material would separate the early magical incantation from the later prayers and hymns of the civilised age. The pious conservatism of the Egyptians preserved the childish gabble of the primitive age side by side with the later prayers. Both are habitually jumbled up together in books on the Ancient Egyptian religious writings, and to the primitive magical gibberish is ascribed a hidden and recondite meaning (on the principle *omne ignotum pro magnifico*) which it never possessed. It never was more than the "patter" of the savage medicine-man. He was the spiritual ancestor, no doubt, of the cultured priests who wrote the hymn to Amen quoted by Mrs. Tirard (p. 157); but this is very far removed above the average calibre of "The Book of the Dead," of which it is no part, and seekers after real religious feeling in Ancient Egypt will go to these hymns and psalms, which have nothing to do with the tomb, its ghosts, and magical paraphernalia, the "clotted absurdities" to which Mrs. Tirard has devoted such careful and painstaking labour, which, however, has, we fear, hardly

been critical enough to be of any value to the anthropologist.

Prof. Naville is quite justified in congratulating (on the introduction which he prefixes to the volume) Mrs. Tirard on the extent of her knowledge of the Egyptian religious writings. It is her uncritical treatment of her own knowledge that we regret. There are few actual mistakes in matters of fact in the book, the most serious perhaps being the statement that the word *makheru*, "justified," is never used of the living, only of the dead; this is incorrect, as instances of *makheru* being used of the living are known. In a matter of faith rather than of reason, we do not share her belief that the "Prince of Wales's Feathers" are derived from the Egyptian feather symbolical of "Truth," or rather, "Right." Where are the intermediate stages between the old Egyptian feather-emblem and the day when the Black Prince did *not* take the three ostrich plumes from the helmet of the slain King of Bohemia? For we know that at Poitiers the blind king's crest was an eagle's wing, and that the picturesque legend of the origin of the Prince of Wales's Feathers has no basis in fact.

In her citations, Mrs. Tirard usually follows the masterly translation of Prof. Naville.

#### ANATOMY OF SEDGES.

*Anatomy of the British Carices.* By F. C. Crawford.

Pp. xiv+124+xx plates. (Edinburgh: Oliver and Boyd, printed for private circulation, 1910.) Price 7s. 6d. net.

FRANCIS CRAWFORD was an enthusiastic worker in pursuits that attracted him; a remarkable man in that, after success in business enabled him to retire at forty-five, he could crowd so much acquisition of natural history knowledge and collections into the remaining twelve years of his life. Botanist, ornithologist, geologist—an all too brief biographical sketch of the author precedes the introduction by Prof. Balfour, who, as his lifelong friend, gives in a few touches fuller insight into the lovable character of the man. His sudden death, soon after the MS. was in the printer's hands, in February, 1908, deprived the work of the author's revision; and Prof. Balfour, who edited it, deemed it best, in spite of its unconventional phraseology, to let the book go forth "as Frank Crawford wrote it."

Crawford had no laboratory training, and, taking to botanical work late in life, could not readily acquire the use of its technical terms, or always consent to their fitness. "If people can't understand plain terms," he used to say, when his vernacular expressions were criticised, "so much the worse for them." This accounts for the frequent blend of scientific and homely phrases. The section of a midrib (p. 49) is described as a "round knob with a blunt point"; the stem of *C. remota* (p. 37) is "roundish and difficult to define, very bumpy"; the section of a leaf of *C. hirta* is "long, narrow, twisting about"; and in another species the "vascular bundles . . . don't reach to the epidermis." But these quaintnesses would not puzzle any reader.

What is a more troublesome deviation from usage will be found in the abbreviations and technical terms

that need explaining, being relegated to casual footnotes. What is the meaning of the sentence on p. 8. "The bundle of *vulpina* var. *nemorosa* is in the median plane, but the patch of sch. does not reach to the apex, there is therefore a point of par."? The reader looks in vain for a list of abbreviations; it is in footnotes on pp. 2, 7, that to the two used here and constantly further on he finds a clue. The terms "involute" and "revolute" bear the meaning of incurved and recurved (p. 4), while "lumen" is not explained at all.

Such minor flaws detract, however, but little from the real value of an admirable book, which has the great merit of being pioneer work, at least in regard to this genus. The field botanist will be grateful for the inside details of stem, leaf, and rhizome, of which for the most part he has been woefully ignorant. All these details are set forth in the clearest style, in type that leaves nothing to be desired.

By Prof. Balfour's advice, Crawford tells us in his introduction, he collected, with the help of the Rev. E. S. Marshall and some others, fresh material to work on in preference to dried herbarium specimens. He first photographed a flower portion, and put other portions in spirit for winter work. From these he took sections of the stem, leaf, rhizome, and root, and prepared photomicrographs of the best, magnifying about 40 diameters. Little or nothing was obtained from dissecting the flowers; these are therefore not touched on in the "Anatomy." Many sections of the other parts were selected to figure, and with drawings of highly magnified stomata, &c., occupy twenty plates. These are done with a clearness of definition and a fidelity of detail that reflect great credit on both photographer and engraver.

The description of the figures in the plates, p. 115 is concise and accurate enough, but the numbers of the plates might have been added for convenience of reference, and as the species in this list of figures are in no order, and several occur again and again, the index should have embraced these pages as well as the rest.

In the special anatomy, as Crawford terms his descriptive account of the species, which forms the body of the work, each part of the plant in section (below the inflorescence) is given in detached paragraphs. *C. chordorrhiza*, Ehrh., is a capital example, being fully illustrated as well as minutely described. Crawford discovered in this species remarkable divergences between its aerial and underground rhizomes. There is no doubt where this came from, as there is but one British locality. The same with *C. trinervis*, which he collected at Ormesby by the present writer's direction. But the locality is a *desideratum* in almost every case, and might be supplied from the labelled specimens or photographs, which have been deposited at the Royal Botanic Garden, Edinburgh.

Most interesting is the success attained in differentiating more thoroughly the triad so perplexing to novices, *C. laevigata*, Sm., *binervis* and *distans*; in confirming on the whole the suspected origin of several hybrids, and in testing the claims of some varieties. Among these last the evidence does not